

AMENDMENTS TO THE CLAIMS

1. (Previously presented) An organic electrolyte capacitor including a positive electrode, a negative electrode and an electrolyte capable of transferring lithium ions,

wherein the positive electrode contains a substance capable of carrying lithium ions and/or anions reversibly as a positive electrode active material, the negative electrode contains a substance capable of carrying lithium ions reversibly as a negative electrode active material, and

wherein the positive and negative electrodes include the positive or negative electrode active material layer on an electrode substrate that has a conductive layer made of a conductive material on an electrode current collector, which has a through-hole that penetrates the front and rear surfaces and at least part thereof is filled with the conductive material, and the negative electrode electrochemically carries lithium ions.

2. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the electrode substrate is a three-layer laminate including a first conductive layer that is made of a conductive material and has many through-holes on a surface of an impermeable metal foil and a second conductive layer that is made of a conductive material and has holes or no holes on the other surface of the impermeable metal foil, and has through-holes in the impermeable metal foil, which are formed by etching the laminate.

3. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein over 80% of the through-holes of the electrode current collectors are blocked with the conductive material.

4. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the electrode current collectors are made of either copper or aluminum as a main component,

5. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the conductive layers are made of a conductive material containing a conducting agent and a non-aqueous binder, the positive electrode active material layer contains the positive electrode active material and an aqueous binder, and the negative electrode active material layer contains the negative electrode active material and an aqueous binder.

6. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the electrolyte is an aprotic organic solvent solution of a lithium salt.

7. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the capacitance per unit weight of the negative electrode active material is more than three times of the capacitance per unit weight of the positive electrode active material, and the weight of the positive electrode active material is larger than the weight of the negative electrode active material.

8. (Previously presented) The organic electrolyte capacitor according to claim 1

wherein the organic electrolyte capacitor is formed by winding an electrode pair having the positive and negative electrodes.

9. (Previously presented) The organic electrolyte capacitor according to claim 1

wherein the organic electrolyte capacitor is formed by laminating electrode pairs having the positive and negative electrodes.

10. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the negative electrode active material is a thermally treated aromatic condensation polymer, and an insoluble and infusible base having a polyacene skeletal structure in which hydrogen/carbon atomic ratio is in the range of 0.50 to 0.05.

11. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the positive electrode active material is mesoporous carbon.

12. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein the electrode current collectors have a thickness of 10 to 39 μm and a porosity of 10 to 90%.

13. (Previously presented) The organic electrolyte capacitor according to claim 1,

wherein thickness of the conductive layer on one surface of the positive electrode is in the range of 1 to 20 μm , the thickness of the positive electrode active material layer on one surface of the positive electrode is in the range of 50 to 175 μm , the total thickness of the positive electrode is in the range of 110 to 360 μm , the thickness of the conductive layer on one surface of the negative electrode is in the range of 1 to 20 μm , the thickness of the negative electrode active material layer on one surface of the negative electrode is in the range of 5 to 100 μm , and the total thickness of the negative electrode is in the range of 40 to 210 μm .

14. (Previously presented) An electric device having the organic electrolyte capacitor

according to claim 1.

15. (Canceled)

16. (Previously presented) An electrical storage device including a positive electrode,

a negative electrode, and an electrolyte capable of transferring lithium ions.

wherein the positive electrode contains a substance capable of carrying lithium ions and/or anions reversibly as a positive electrode active material,

wherein the negative electrode contains a substance capable of carrying lithium ions reversibly as a negative electrode active material, and

wherein the positive and negative electrodes have conductive layers made of conductive materials on electrode current collectors having through-holes that penetrate the front and rear surfaces and at least part thereof is filled with the conductive materials, and have positive or negative electrode active material layer on the conductive layers.

17. (Previously presented) An organic electrolyte capacitor including a positive electrode, a negative electrode and an electrolyte capable of transferring lithium ions,

wherein the positive electrode contains a substance capable of carrying lithium ions and/or anions reversibly as a positive electrode active material, the negative electrode contains a substance capable of carrying lithium ions reversibly as a negative electrode active material,

wherein the positive and negative electrodes include the positive or negative electrode active material layer on an electrode substrate that has a conductive layer made of a conductive material on an electrode current collector, which has a through-hole that penetrates the front and rear surfaces, and the negative electrode electrochemically carries lithium ions, and

wherein the electrode substrate is a three-layer laminate including a first conductive layer that is made of a conductive material and has many through-holes on a surface of an impermeate metal foil and a second conductive layer that is made of a conductive material and has holes or no holes on the other surface of the impermeate metal foil, and has through-holes in the impermeate metal foil, which are formed by etching the laminate.